

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Toshio Hihara et al.

Application No.: 10/563,198

Confirmation No.: 6470

Filed: January 3, 2006

Art Unit: 1796

For: DISPERSE DYE MIXTURES WHICH HAVE A
HIGH DEGREE OF LIGHT FASTNESS

Examiner: B. Ahvazi

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on March 19, 2010, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying
TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

- | | |
|------------|---|
| I. | Real Party In Interest |
| II | Related Appeals and Interferences |
| III. | Status of Claims |
| IV. | Status of Amendments |
| V. | Summary of Claimed Subject Matter |
| VI. | Grounds of Rejection to be Reviewed on Appeal |
| VII. | Argument |
| VIII. | Claims |
| Appendix A | Claims |
| Appendix B | Evidence |
| Appendix C | Related Proceedings |

1 I. REAL PARTY IN INTEREST

2 The real party in interest for this appeal is:

3 DyStar Textilfarben GmbH & Co. Deutschland KG

4 II. RELATED APPEALS AND INTERFERENCES

5 There are no other appeals, interferences, or judicial proceedings which will directly
6 affect or be directly affected by or have a bearing on the Board's decision in this appeal.

7 III. STATUS OF CLAIMS

8 A. Total Number of Claims in Application

9 There are 11 claims pending in application.

10 B. Current Status of Claims

11 1. Claims canceled: 1-8

12 2. Claims withdrawn from consideration but not canceled: None

13 3. Claims pending: 9-19

14 4. Claims allowed: None

15 5. Claims rejected: 9-19

16 C. Claims On Appeal

17 The claims on appeal are claims 9-19

IV. STATUS OF AMENDMENTS

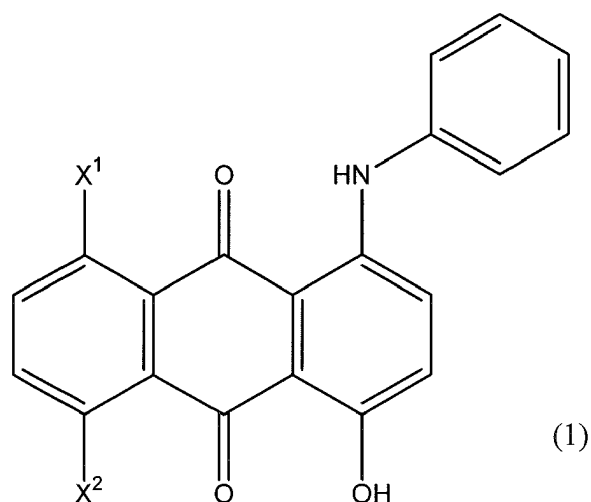
Applicant filed a Response After Final Rejection on March 19, 2010. The Examiner responded to the Response After Final Rejection in an Advisory Action mailed March 30, 2010. In the Advisory Action, the Examiner indicated that Applicants' Request for Reconsideration has been considered but it did not render the claims allowable.

Accordingly, the claims enclosed herein as Appendix A are claims 9-19.

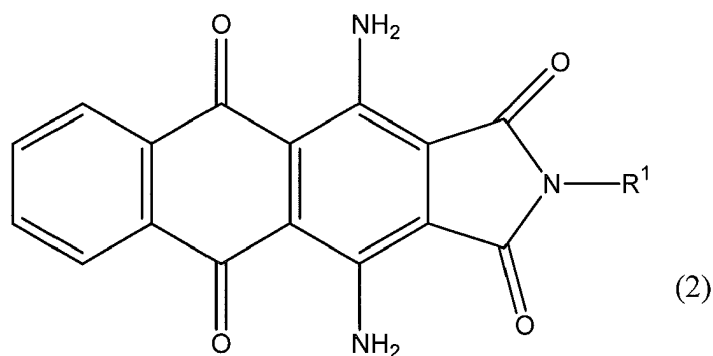
V. SUMMARY OF CLAIMED SUBJECT MATTER

Of the 11 claims on appeal, claims 9 and 19 are the independent claims. Claims 9 and 19 are as follows:

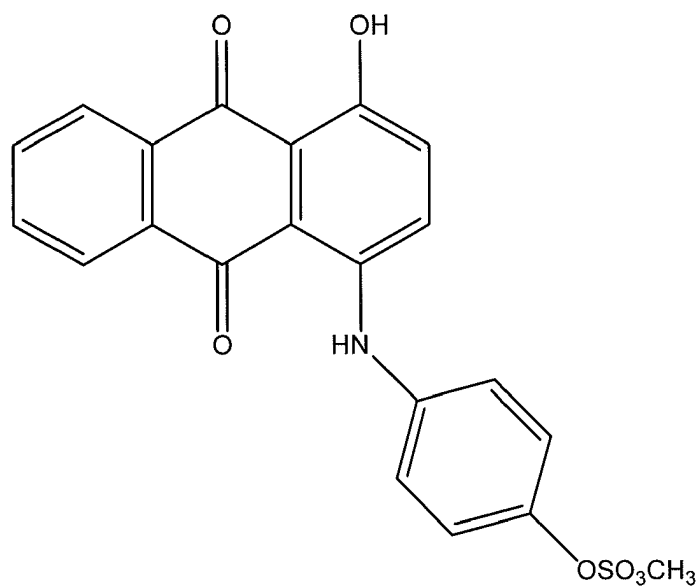
9. A blue colored dye mixture which contains from 10 to 60 wt% with respect to the total pigment fraction of a blue pigment which is a mixture of the two isomers represented by structural formula (1)



wherein one of X^1 and X^2 represents NO_2 and the other represents OH , from 60 to 10 wt% with respect to the total pigment fraction of a blue pigment represented by structural formula (2)

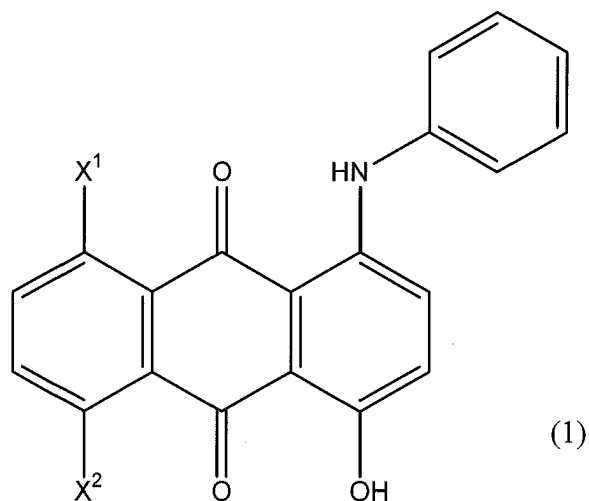


wherein R¹ represents -C₃H₆OCH₃, -C₃H₆OC₂H₅ or -C₃H₆OC₂H₄OCH₃, and from 10 to 30 wt% with respect to the total pigment fraction of the blue pigment which can be represented by structural formula (3)

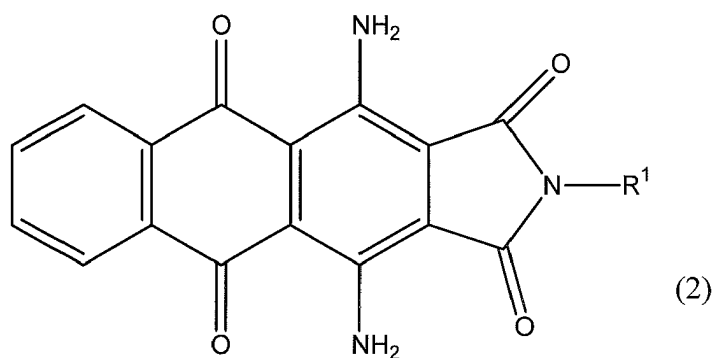


[see page 2, line 31 through page 3, line 12 of the applicant's specification]

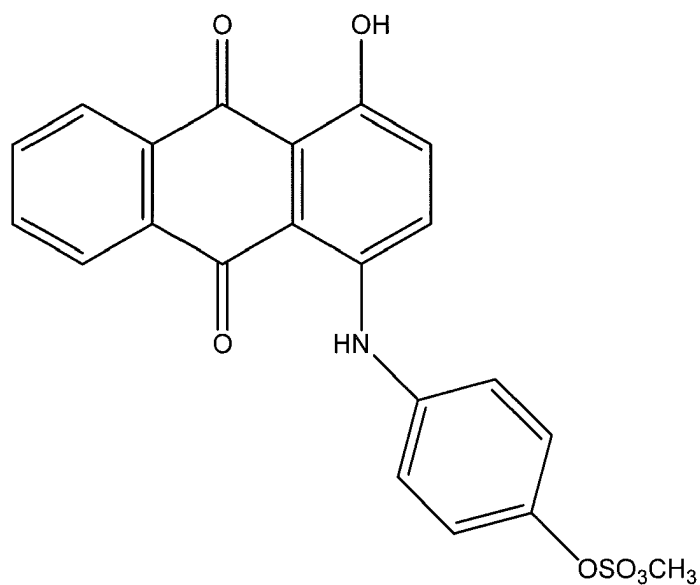
19. A blue colored dye mixture which consists essentially of from 10 to 60 wt% with respect to the total pigment fraction of a blue pigment which is a mixture of the two isomers represented by structural formula (1)



wherein one of X^1 and X^2 represents NO_2 and the other represents OH ,
 from 60 to 10 wt% with respect to the total pigment fraction of a blue pigment represented by
 structural formula (2)



wherein R^1 represents $-\text{C}_3\text{H}_6\text{OCH}_3$, $-\text{C}_3\text{H}_6\text{OC}_2\text{H}_5$ or $-\text{C}_3\text{H}_6\text{OC}_2\text{H}_4\text{OCH}_3$, and
 from 10 to 30 wt% with respect to the total pigment fraction of the blue pigment which can be
 represented by structural formula (3)



(3)

[see page 2, line 31 through page 3, line 12 of the applicant's specification]

The difference between independent claims 9 and 19 is that independent claim 9 uses open ended language "contains" and independent claim 19 uses partially open and partially closed language "consisting essentially of".

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 9, 11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,734,028 (Himeno '028) in view of JP04-164969, 1992, Abstract (Izutsu), and further in view of U.S. 5,332,404 (Himeno '404).
2. Claims 10, 12 and 14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno '028, Izutsu, Himeno '404, as applied to claims 9, 11 and 13 and further in view of JP06-345989 A, machine translation (Tsumura).
3. Claims 15 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno, Izutsu, Himeno '404, and Tsumura and further in view of US 5,608,042 (Himeno'042).
4. Claims 17 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno et al., Izutsu et al., Himeno '404, Tsumura, Himeno '042, and further in view of US 5,824,118 (Akai).
5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno '404.

VII. ARGUMENT

A. Claims 9-18

1. Claims 9, 11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno '028 in view of Izutsu, and further in view of Himeno '404.
2. Claims 10, 12 and 14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno '028, Izutsu, Himeno '404, as applied to claims 9, 11 and 13 and further in view Tsumura.
3. Claims 15 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno, Izutsu, Himeno '404, and Tsumura and further in view of Himeno'042.

1 4. Claims 17 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over
2 Himeno et al., Izutsu et al., Himeno '404, Tsumura, Himeno '042, and further in
3 view of Akai.

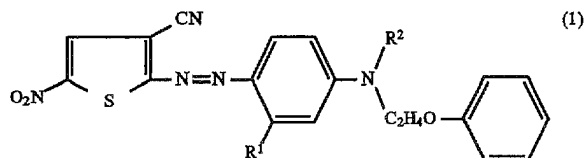
4 The invention relates to disperse dyes for dyeing polyester-based fibers. In particular, the
5 invention specifically discloses disperse dye mixtures which have good fastness even on
6 polyester-based fibers of fine denier which are disadvantageous in terms of light fastness, and
7 with which mixed fibers where the thickness of the polyester-based fibers differs (mixed fibers
8 of different fineness) or fiber mixtures comprising polyester-based fibers which can be dyed with
9 cationic dyes and regular polyester-based fibers can be dyed the same color (see page 1, lines 5-
10 11 of the applicant's specification).

11 Cloths comprising polyester-based fibers are often used as the material for automobile
12 seats, but more recently a demand has arisen for richer seat colors as more emphasis has been
13 placed on the fashion aspect of the interior furnishing of automobiles. However, automobile seats
14 are often exposed to high temperatures and sunlight when the cabin is closed and so color fading
15 of the seats is liable to arise and it is difficult to ensure that the beautiful color will be retained
16 over a prolonged period of time. Disperse dyes are generally used for dyeing polyester-based
17 fibers, but dyes which have especially good light fastness must be used in the case of automobile
18 seat applications. Moreover, more recently there have been many cases where fine denier
19 polyester-based fibers have been used for automobile seat materials, and when these are dyed
20 using the same dyes it is observed that the light fastness is worse than that observed when regular
21 polyester-based fibers have been used. Against the background of these facts a demand has
22 arisen for dyes for automobile seats which have better light fastness than that in the past (see the
23 applicant's specification at page 1, lines 12-27).

The present invention is intended to provide disperse dye mixtures with which polyester-based fibers, and especially fine denier polyester-based fibers, can be dyed with good light fastness, and which are suitable for dyeing polyester-based fiber mixtures of different thickness (mixed fibers of different fineness) or polyester-based fibers comprising polyester-based fibers which can be dyed with cationic dyes and regular polyester-based fibers the same color and with good reproducibility (see the applicant's specification at page 2, lines 14-20).

The inventors have discovered that blue dye mixtures, yellow dye mixtures and red dye mixtures which have excellent light fastness are obtained by mixing specified dyes in certain proportions, and that when these are used as compound colors, not only is the light fastness excellent but the dyeing rates of each color are matched, and polyester-based fibers of different thickness or polyester-based fibers comprising polyester-based fibers which can be dyed with cationic dyes and polyester-based fibers can be dyed the same color and with good reproducibility easily, and the invention is based upon this discovery (see the applicant's specification at page 2, lines 22-29).

The Examiner has relied upon three primary references to reject all the claims. The Examiner is correct that Himeno '028's dye of formula (3) corresponds to the applicant's dyestuff of formula (1). Himeno '028 teaches a dye mixture having certain specific monoazo dye of the formula (1)



and a dye that can be of the formula (3) (see col. 1, lines 3-61). Himeno '028 requires the mixture of the dye of formula (1) which is not required by the applicant's claimed invention.

1 As the Examiner correctly stated at the bottom of page 3 to the top of page 4 of the final
2 office action mailed September 21, 2009 that Himeno '028 does not expressly disclose a blue
3 colored dye mixture which comprises blue pigment represented by the applicant's structural
4 formula (2) and (3).

5 The Examiner relies upon Izutsu for the disclosure of the applicant's dye of formula (2).
6 However, Izutsu teaches to use a mixture of

7 a yellow disperse dye (A) comprising a compound of the formula I,
8 a red disperse dye (B) comprising a mixture of at least two compounds selected from the
9 formula II, formula III, formula IV and formula V
10 a blue disperse dye (C) comprising the mixture of at least two compounds of the formula
11 VI, VII and VIII.

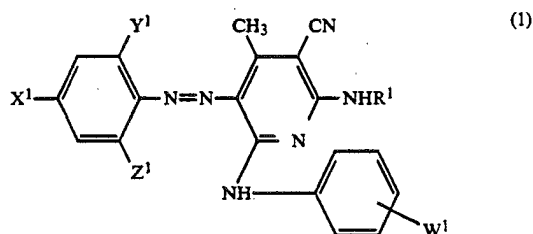
12 Izutsu requires at least two different blue dyes of the formula VI, VII and VIII. The
13 compound of formula VIII can correspond to the applicant's formula (2) (see English translation
14 of Izutsu abstract).

15 As the Examiner correctly stated in the first full paragraph in the middle of page 3 of the
16 final office action, "Neither Himeno et al. ('028") nor Izutsu et al. discloses a blue colored dye
17 mixture which comprises blue pigment represented by the structural formula (3)."

18 Again, Izutsu discloses a particular mixture of dyes and does not disclose the applicant's
19 claimed dye mixture of dyes (1), (2) and (3) let alone in the applicant's specified amounts.

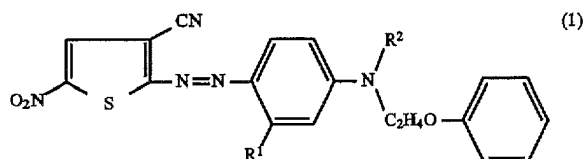
20 The Examiner then relies upon Himeno '404 for the teaching of the applicant's dye of the
21 formula (3).

22 Himeno '404 requires the following monoazo dye of the formula (1)

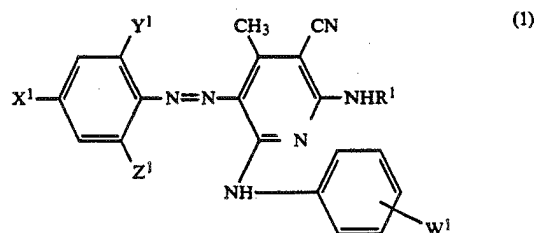


and a monoazo dye of the formula (2), from 2 to 2,000 parts by weight of at least one yellow disperse dye selected from the group consisting of dyes of the following formulas (3) to (7) and from 2 to 2,000 parts by weight of at least one blue disperse dye selected from the group consisting of dyes of the following formulas (8) to (10). However, the formulas (8) to (10) must be manipulated to fall within the applicant's claimed formulas (1) to (3). Furthermore, there is only one example out of the 141 examples that use 2 of the applicant's claimed dyes and that is Example 75.

The Examiner proceeds to then combine all three references and argues and cites MPEP §2144.06 (combining the references is combining equivalents known for the same purpose). The applicant respectfully disagrees. Himeno '404 and Himeno '028 use different monoazo dyes in combination with a blue dye. Himeno '028 uses the monoazo dye of the formula (1)



while Himeno '404 requires the following monoazo dye of the formula (1)



1 The other secondary references Tsumura, Himeno '042 and Akai do not cure the
2 deficiencies of the primary references.

3 A statement that modifications of the prior art to meet the claimed invention would have
4 been "obvious to one of ordinary skill in the art at the time the invention was made" because the
5 references relied upon teach that all aspects of the claimed invention were individually known in
6 the art is not sufficient to establish a *prima facie* case of obviousness without some objective
7 reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd.
8 Pat. App. & Inter. 1993). See MPEP § 2143.01 IV. "[R]ejections on obviousness cannot be
9 sustained by mere conclusory statements; instead, there must be some articulated reasoning with
10 some rational underpinning to support the legal conclusion of obviousness." *KSR International*
11 *Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988 (Fed.
12 Cir. 2006). Furthermore, the Examiner cannot selectively pick and choose from the disclosed
13 parameters without proper motivation as to a particular selection. The mere fact that a reference
14 may be modified to reflect features of the claimed invention does not make the modification, and
15 hence the claimed invention, obvious unless the prior art suggested the desirability of such
16 modification. *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430 (Fed. Cir. 1990); *In re Fritch*, 23
17 USPQ2d 1780 (Fed. Cir. 1992). Thus, it is impermissible to simply engage in a hindsight
18 reconstruction of the claimed invention where the reference itself provides no teaching as to why
19 the applicant's combination would have been obvious. *In re Gorman*, 933 F.2d 982, 987, 18
20 USPQ2d 1885, 1888 (Fed. Cir. 1991).

21 The applicant notes that Himeno '404 and Himeno '028 have two of the same inventors
22 (Himeno and Hihara). Further the applicant points out that Himeno '028 was filed over three
23 years after Himeno '404. The objects of Himeno '404 and Himeno '28 were different

1 Assuming arguendo that the Examiner has made a *prima facie* case of obviousness, the
2 applicant submitted a 1.132 declaration which rebutted this rejection (see Declaration enclosed in
3 Appendix B).

4 The Murgatroy Declaration illustrates unexpected results by comparing example 75 of
5 Himeno '404, which is a mixture of two dyes. The first corresponds to formula (2) of the present
6 claims and the second corresponds to formula (3) of the present claims. Accordingly, both dyes
7 of Example 75 are within the formulae of claim.

8
9 The applicant has compared the three single dyes of the inventive mixture as they are all
10 known dyestuffs and the mixture of dyes (2) and (3) which is disclosed in prior art as well (see
11 Mixture A of the Declaration). The applicant has compared the following:

- 12 1) Dyestuff which is an isomer of formulae (a1) and (a2),
- 13 2) Dyestuff of the formula (b),
- 14 3) Dyestuff of the formula (c),
- 15 4) Dyestuff Mixture A comprising
16 75 % by weight of the dyestuff to formula (b)
17 25 % by weight of the Dyestuff of formula (c), [This corresponds to Example 75 of
18 Himeno '404, the closest prior art example]
- 19 5) Dyestuff Mixture B comprising
20 60 % by weight of the Dyestuff (a)
21 10% by weight of the Dyestuff (b) and
22 30 % by weight of the Dyestuff (c),
- 23 6) Dyestuff Mixture C comprising
24 60 % by weight of the Dyestuff (a)
25 30% by weight of the Dyestuff (b) and

- 1 10 % by weight of the Dyestuff (c),
2 7) Dyestuff Mixture D comprising
3 30 % by weight of the Dyestuff (a)
4 60% by weight of the Dyestuff (b) and
5 10 % by weight of the Dyestuff (c),
6 8) Dyestuff Mixture E comprising
7 10 % by weight of the Dyestuff (a)
8 60% by weight of the Dyestuff (b) and
9 30 % by weight of the Dyestuff (c)

10
11 These eight examples have 3 comparisons that are according to the prior art (examples 1-3)
12 and one not covered by the claimed invention (example 4) Mixture A. **The applicant has**
13 **compared the closest prior art example which is example 75 of US**
14 **5,332,404 (see no. 4).** Mixtures B-E (examples 5-8) are according to the claimed
15 invention and show the use of a mixture containing 5 different percentages of Dyestuffs a, b
16 and c having the specific ranges
17 10 to 60% by weight of Dyestuff a (note that Mixtures B and C contain 60%, while Mixture
18 D contains 30% and Mixture E contains 10% by weight of Dyestuff a),
19 10 to 60% by weight of Dyestuff b (note that Mixture B contain 10%, while mixture C
20 contains 30% and mixtures D and E contains 60% by weight of Dyestuff b), and
21 10 to 30% by weight of Dyestuff c (note that Mixtures B and E contain 30%, while mixtures
22 C and D contain 10% by weight of Dyestuff c),

1 The applicant believes that the dyestuff according to the invention are clearly
2 commensurate in scope since the applicant has shown examples of dyestuff a at 10%, 30%
3 and 60% by weight, shown examples of dyestuff b at 10%, 30% and 60% by weight, shown
4 examples of dyestuff c at 10% and 30% by weight. Furthermore, the applicant established
5 unexpected results with respect to build up properties and the Integ values (see pages 4 and 5
6 of the Declaration). The applicant believes that these results are commensurate in scope
7 with the claimed invention. Again, mixtures B-E show the use of a mixture which contains:

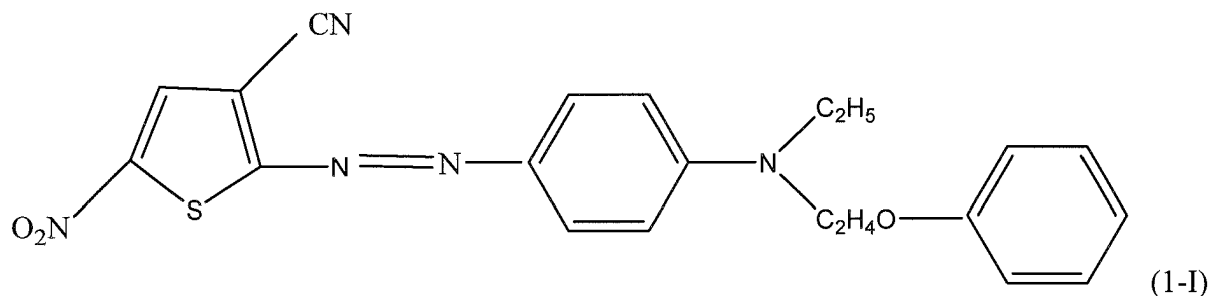
8 10 to 60% by weight of Dyestuff a,

9 10 to 60% by weight of Dyestuff b and

10 10 to 30% by weight of Dyestuff c.

11 In the Advisory action, the Examiner is correct, that the applicant did not compare prior
12 art example 7 of Himeno '028). The applicant believes that the illustration of unexpected results
13 by comparing said example 7 is not necessary as the applicant compared prior art examples that
14 are structurally closer to the claimed mixtures:

15 Example 7 is a mixture of dyes (3) and (1-1) of Himeno. While dye (3) corresponds to
16 dye (1) of the present claims and is "Dyestuff (a1)" of the Declaration provided by Adrian
17 Murgatroyd, dye (1-1) has nothing to do with the present application and none of the formulae
18 disclosed in the present application comprises this dye. Dye (1-1) is of the formula

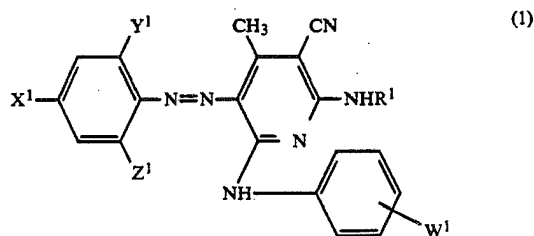


Again, dye (1-I) has nothing to do with the applicant's claimed invention! The Murgatroy Declaration illustrates unexpected results by comparing example 75 of Himeno '404, which is a mixture of two dyes. The first corresponds to formula (2) of the present claims and the second corresponds to formula (3) of the present claims. Accordingly, both dyes of Example 75 are within the formulae of claim. Consequently, example 75 of Himeno '404 is closer to the invention than example 7 of Himeno '028. Therefore, the applicant's have compared the closest prior art. The applicant respectfully believes that the claims are commensurate in scope with the declaration.

B. Claim 19

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himeno '404.

Claim 19 is narrower than claim 9 and uses "consisting essentially of" language (partially open and partially closed) instead of open language "contains" in claim 9. Himeno '404 requires the following monoazo dye of the formula (1)



and a monoazo dye of the formula (2), from 2 to 2,000 parts by weight of at least one yellow disperse dye selected from the group consisting of dyes of the following formulas (3) to (7) and from 2 to 2,000 parts by weight of at least one blue disperse dye selected from the group consisting of dyes of the following formulas (8) to (10). However, the formulas (8) to (10) must be manipulated to fall within the applicant's claimed formulas (1) to (3). Furthermore, there is

1 only one example out of the 141 examples that use 2 of the applicant's claimed dyes and that is
2 Example 75.

3 The Murgatroy Declaration illustrates unexpected results by comparing example 75 of
4 Himeno '404, which is a mixture of two dyes. The first corresponds to formula (2) of the present
5 claims and the second corresponds to formula (3) of the present claims. Accordingly, both dyes
6 of Example 75 are within the formulae of claim. As stated above the declaration establishes
7 unexpected results.

8 The applicant conducted a telephone interview on November 30, 2009. The applicant
9 discussed the declaration. The Examiner suggested that the applicant amend the claims to
10 "consisting essentially of" instead of "contains". The Examiner said that the declaration would
11 be commensurate in scope with the amended claims. It is pointed out that claim 19 uses
12 "consisting essentially of language". This claim is clearly commensurate in scope with the
13 showing in the 1.132 Declaration.

14
15 VIII. CLAIMS

16 A copy of the claims involved in the present appeal is attached hereto as Appendix A. As
17 indicated above, the claims in Appendix A include the amendments filed by Applicant on
18 March 19, 2010, and do not include the amendment(s) filed on March 19, 2010.

19 Applicant believes no fee is due with this response. However, if a fee is due, please
20 charge our Deposit Account No. 03-2775, under Order No. 05579-00350-US from which the
21 undersigned is authorized to draw.

Dated: May 19, 2010

Respectfully submitted,

Electronic signature: /Ashley I. Pezzner/

Ashley I. Pezzner

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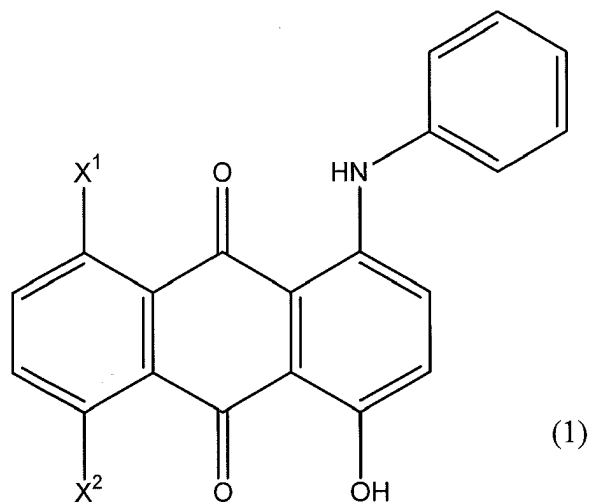
(302) 658-5614 (Fax)

Attorney for Applicant

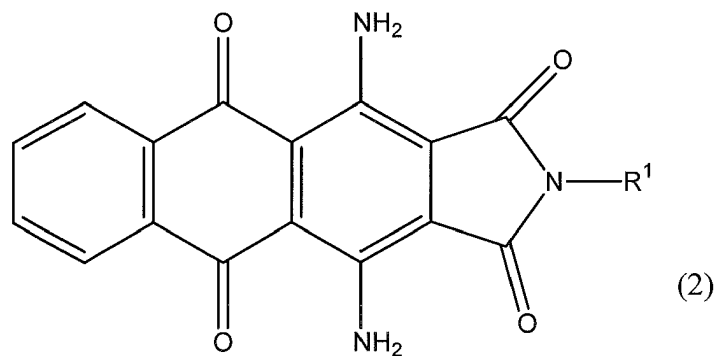
APPENDIX A**Claims Involved in the Appeal of Application Serial No. 10/563,198**

1 – 8. (Cancelled)

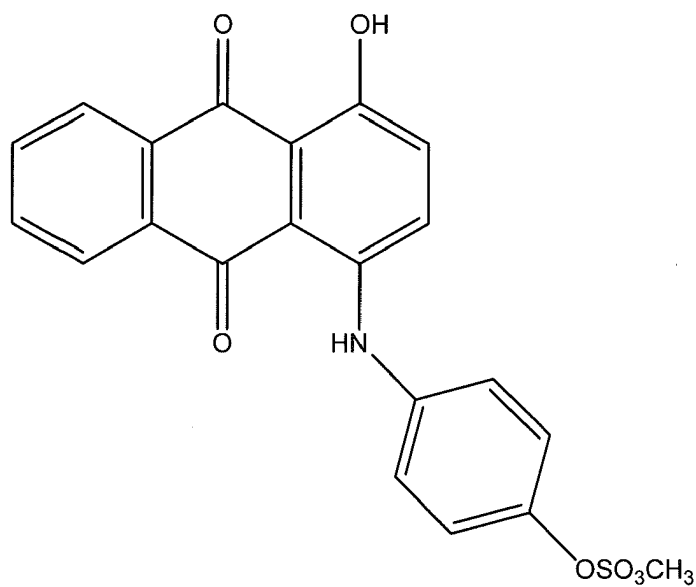
9. (Previously Presented) A blue colored dye mixture which contains from 10 to 60 wt% with respect to the total pigment fraction of a blue pigment which is a mixture of the two isomers represented by structural formula (1)



wherein one of X¹ and X² represents NO₂ and the other represents OH, from 60 to 10 wt% with respect to the total pigment fraction of a blue pigment represented by structural formula (2)

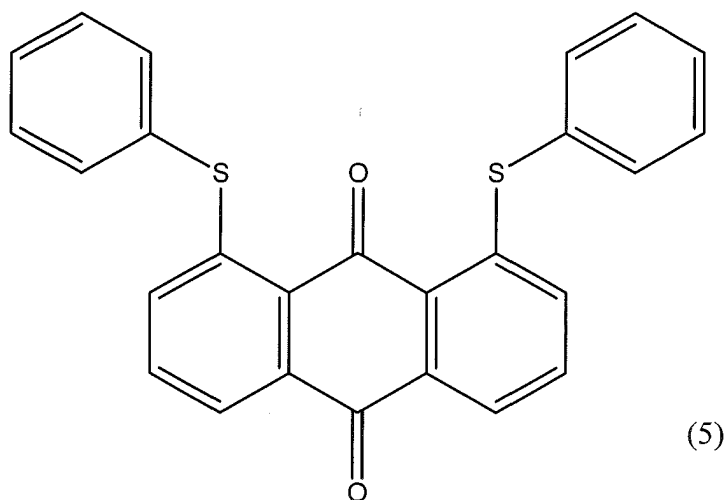


wherein R¹ represents -C₃H₆OCH₃, -C₃H₆OC₂H₅ or -C₃H₆OC₂H₄OCH₃, and from 10 to 30 wt% with respect to the total pigment fraction of the blue pigment which can be represented by structural formula (3)



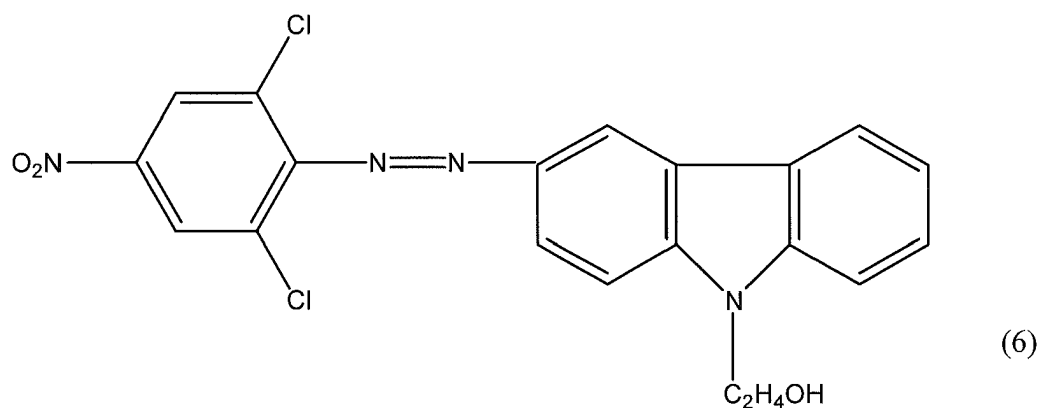
(3)

10. (Previously Presented) A dye composition which comprises the blue dye mixture according to claim 9, and a yellow dye mixture and/or a red dye mixture, wherein the yellow dye mixture contains from 25 to 75 wt% with respect to the whole pigment fraction of the yellow pigment represented by structural formula (5)

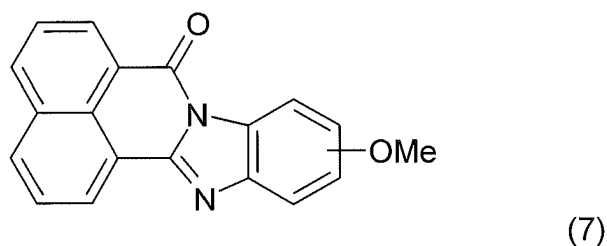


(5)

from 60 to 20 wt% with respect to the whole pigment fraction of the yellow pigment represented by structural formula (6)

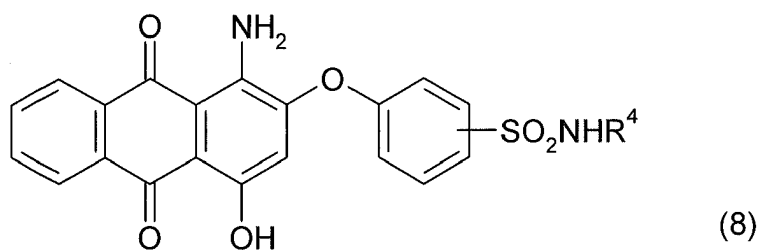


and from 15 to 5 wt% with respect to the whole pigment fraction of the yellow pigment represented by structural formula (7)



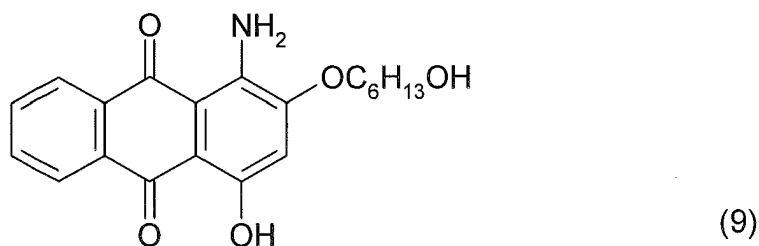
Me represents CH₃,

and the red dye mixture contains from 30 to 60 wt% with respect to the whole pigment fraction of a red pigment represented by structural formula (8)

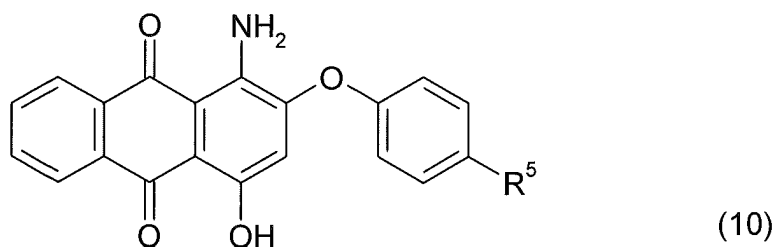


wherein R⁴ represents a C₁ to C₃ alkoxy C₁ to C₃ alkyl group,

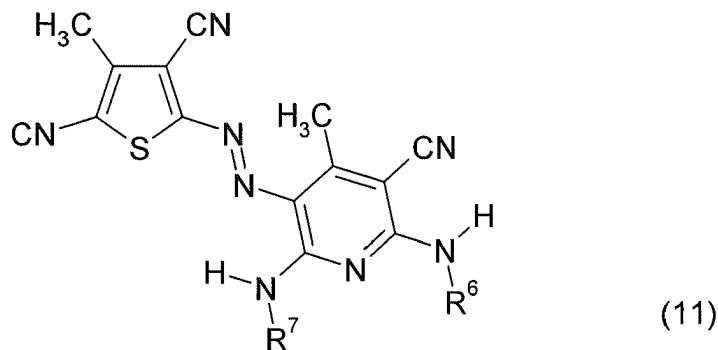
from 70 to 20 wt% with respect to the whole pigment fraction of the red pigment represented by the structural formula (9)



and from 0 to 20 wt% with respect to the whole pigment fraction of a red pigment represented by structural formula (10)



wherein R^5 represents a hydrogen atom, a chlorine atom or a bromine atom, or by the structural formula (11)



wherein one of R^6 and R^7 is a hydrogen atom and the other is hydroxyethoxyethyl, hydroxybutoxypropyl, acetoxyethoxyethyl or acetoxybutoxypropyl.

11. (Previously presented) A method of dyeing polyester-based fibers which comprises contacting the fibers with the blue dye mixture as claimed in claim 9 with the fibers.

12. (Previously presented) A method of dyeing polyester-based fibers which comprises contacting the fibers with the composition as claim in claim 10.

13. (Previously presented) A dyed polyester-based fiber material which has been dyed using a blue dye mixture as claimed in claim 9.

14. (Previously presented) A dyed polyester-based fiber material which has been dyed using the dye composition as claimed in claim 10.

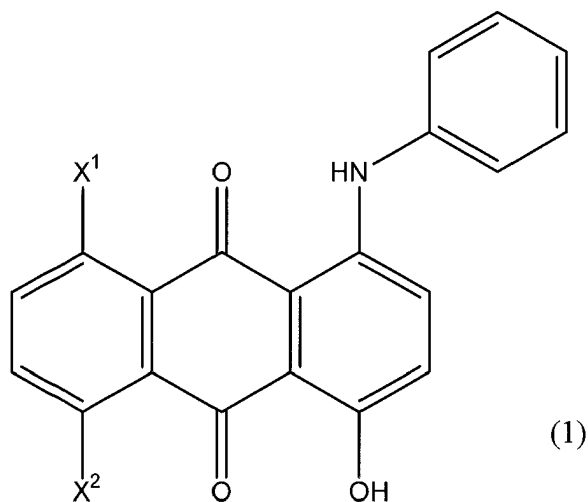
15. (Previously presented) A method of dyeing polyester-based fibers according to claim 14 in which the polyester-based fibers are mixed fibers of different fineness.

1 16. (Previously presented) A dyed polyester-based fiber material according to claim 15 in which
2 the polyester-based fibers are mixed fibers of different fineness.

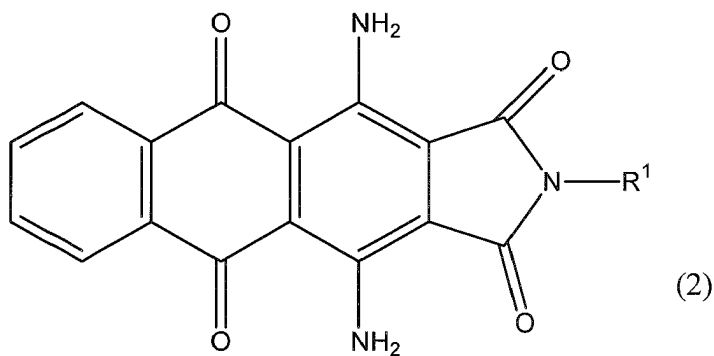
3
4 17. (Previously presented) A method of dyeing polyester-based fibers according to claim 15 in
5 which the polyester-based fibers are mixed fibers comprising polyester-based fibers which can
6 be dyed with a cationic dye and regular polyester-based fibers.

7
8 18. (Previously presented) A dyed polyester-based fiber material according to claim 16 in which
9 the polyester-based fibers are mixed fibers comprising polyester-based fibers which can be dyed
10 with a cationic dye and regular polyester-based fibers.

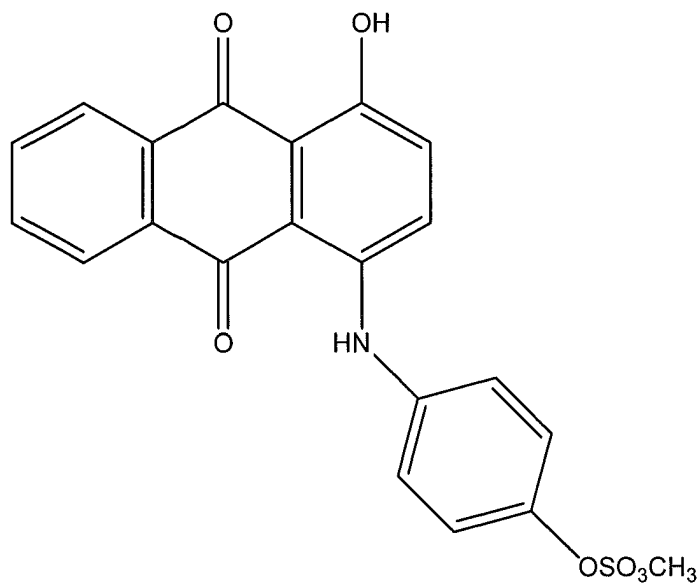
11 19. (Previously presented) A blue colored dye mixture which consists essentially of
12 from 10 to 60 wt% with respect to the total pigment fraction of a blue pigment which is a
13 mixture of the two isomers represented by structural formula (1)



14
15 wherein one of X¹ and X² represents NO₂ and the other represents OH,
16 from 60 to 10 wt% with respect to the total pigment fraction of a blue pigment represented by
17 structural formula (2)



- 1 wherein R¹ represents -C₃H₆OCH₃, -C₃H₆OC₂H₅ or -C₃H₆OC₂H₄OCH₃, and
- 2 from 10 to 30 wt% with respect to the total pigment fraction of the blue pigment which can be
- 3 represented by structural formula (3)



4

(3)

1
2
3
4
5

APPENDIX B

1. 1.132 Declaration executed May 29, 2009 by Adrian Murgatroyd